

June 27, 2014

Ms. Robin Futch Georgia Department of Natural Resources Response and Remediation Program 2 Martin Luther King, Jr. Drive S.E. Suite 1462, East Tower Atlanta, Georgia 30334-9000

RE: Voluntary Remediation Program Semi-Annual Progress Report #4
Tara Shopping Center
8564 Tara Boulevard, Jonesboro, Clayton County, Georgia
Tax Parcel ID 13242D B001; HSI Site No. 10798

Dear Ms. Futch,

On behalf of Ashland Inc. (Ashland), EHS Support LLC (EHS Support) is submitting this Semi-Annual Progress Report for the project referenced above. As you are aware, remediation activities are being completed under the Voluntary Remediation Program (VRP). Pursuant to the VRP application conditional approved letter issued on June 28, 2012, the purpose of this progress report is to provide a summary of activities completed between January 2014 and June 2014.

On February 7, 2014, The Georgia Department of Natural Resources Environmental Protection Division (EPD) issued a comment letter on the previously submitted progress reports and the June 19, 2012 white paper "Evaluation of the Applicability of PCE WQS and Proposed Alternative Approach". This progress report incorporates the requested changes as well as provides response to comments as applicable. Response to comments concerning soil analytical data presentation were provided in the March 14, 2014 Soil Remediation Completion Report. A summary of professional service time is provided as **Attachment A**.

Source Area Remediation

A Soil Remediation Completion Report summarizing remedial activities to treat soil within the source area was submitted on March 14, 2014. Representatives from the Georgia EPD, Ashland and EHS Support met at the project site on March 25, 2014. The purpose of the site visit was to 1) inspect the completion of soil remediation work; 2) discuss access to off-site properties for the purposes of groundwater delineation; and, 3) observe creek conditions due west of the project site. Based on field observations, the site plan was updated to reflect the surface water drainage near the creek (i.e., retention pond). A copy of the site plan is provided as **Figure 1**.

Georgia EPD provided initial draft comments on the Soil Remediation Completion Report in their electronic correspondence dated May 19, 2014. Minor revisions to supporting documents are currently in production and will be forwarded no later than July 30, 2014.

As proposed in the Soil Remediation Completion Report, semi-annual groundwater sampling will be completed to evaluate groundwater conditions immediately downgradient/sidegradient of the treatment area. The first sampling event is proposed to be completed this Summer. A discussion of the analytical results will be presented in the next semi-annul progress report.



Groundwater Investigation

The monitoring well network was surveyed by Travis Pruitt & Associates on July 24, 2013. Depth to water measurements were recorded from the entire monitoring well network on August 18, 2013 with the exception of monitoring well cluster MW-11A/B/C and MW-17A. This area was used for equipment storage during on-site remediation work which made these wells inaccessible. Depth to water measurements were recorded to the nearest 0.01-inch and were used to calculate groundwater elevation data (**Table 1**). Groundwater elevation data was used to evaluate vertical hydraulic gradients and groundwater flow direction between the residuum and bedrock water bearing zones.

In general, a downward vertical flow gradient is observed between the residuum and bedrock water bearing zones (refer to **Figure 2**). Groundwater flow within the residuum is to the west. Groundwater flow within the bedrock is to the west and northwest (**Figure 3 through 5**). These findings are similar to the potentiometric surface maps presented in the 2009 Groundwater Corrective Action Plan submitted by URS Corporation, dated March 20, 2009 (*Figures 14 through 16*). Data collected from new monitoring wells southwest of the Site (MW-19 cluster and MW-20C) illustrate the westerly flow component within the residuum west of Tara Boulevard.

Groundwater flow regimes were compared to the groundwater analytical data collected in May 2013 (**Figure 6**), this information was used to identify the placement of new off-site monitoring wells in the southwest portion of the investigation area (refer to **Figure 7**). The geologic cross sections were also updated to assist in identifying the proposed screened depth intervals. A cross section location map is provided as **Figure 8**. The lithologic cross sections are presented on **Figure 9**.

Table 2 outlines the proposed monitoring wells to complete vertical and horizontal delineation of groundwater impacts associated with the former dry cleaner Site. All new monitoring well locations (and existing monitoring well MW-11A/C/C and MW-17A) will be surveyed by a state licensed surveyor. The datum will be tied into the existing monitoring well network. This information will be used to update lithological cross sections and groundwater flow directions.

Provided below is the status of access agreements for those properties discussed on the June 24, 2014 conference call with Georgia EPD.

Parcel 13241C G015

Attempts to reasonably negotiate an access agreement with the property owner for the purposes of collecting groundwater data due east of 8564 Tara Boulevard have been unsuccessful. Pursuant to the June 24, 2014 conference call, Ashland will look at an alternate location east of Fayetteville Road.

Parcel 13241D C001

An access agreement was executed in December 2012. As previously discussed, two (2) monitoring wells are proposed due east of 8660 Tara Boulevard (monitoring well cluster MW-13). The location of the proposed monitoring wells are provided on **Figure 7.** The final locations will be determined following utility clearance.

Parcel 13242D B001

An access agreement was executed in August 2012. Analytical results from the March 2013 sampling event indicate additional delineation of volatile organic compounds suspected to be migrating from the former dryer cleaner site (8564 to the southwest of Tara Boulevard) is needed. Four (4) monitoring wells are proposed to horizontally and vertically delineate groundwater downgradient of monitoring well cluster



MW-19A/B/C. Proposed monitoring wells are provided on **Figure 7**. The final locations will be determined following utility clearance.

Parcel 13242D A016A/A018

Five (5) monitoring wells are proposed to horizontally and vertically delineate volatile organic compounds suspected to be migrating from the former dryer cleaner site (8564 Tara Boulevard). The location of the proposed monitoring wells are provided on **Figure 7**. The final locations will be determined following utility clearance.

Multiple unsuccessful attempts were made to communicate with the property owner; however, external factors have prevented access. In 2013, an alternate plan to install monitoring wells within the State right-of-way along the west side of Tara Boulevard was discussed with the Georgia EPD. All parties agreed that the information collected at this alternate location would not meet the data quality objectives for delineation. In 2014, with the potential of property ownership change, Ashland attempted to reinitiate access at 8557 Tara Boulevard. With Georgia EPD's assistance, Ashland will continue to pursue access. However, in the interim, delineation to the southwest and southeast will continue.

Qualifying Property Status

Inclusion of additional properties within the VRP is still under evaluation.

Schedule

Fieldwork is tentatively scheduled to resume in August 2014. Fieldwork will resume at those properties that have an executed access agreement. In the interim, Ashland, with assistance from Georgia EPD, will continue to make reasonable efforts to obtain access agreements with the properties discussed above.

As discussed during the June 24, 2014 conference call, the timeframe to complete horizontal delineation off-site has been changed from June 28, 2014 to December 28, 2014 based on continued access negotiations with private property owners.

If you should have any questions regarding the information presented in this progress report, please contact me at <u>michelle.stayrook@ehs-support.com</u> or 412-807-1494. Alternatively you can contact Michael Dever at <u>mbdever@ashland.com</u> or 614-790-1586.

Sincerely,

Michelle Stayrook EHS Support

Project Manager

Attachments

cc: Michael Dever, Ashland (email)

Michelle Stayrook

Rich Williams, Esq. Ashland (email) Eric Nathan, Tara Retail Holdings, Inc.

Amy Magee, King and Spalding

Kristin VanLandingham, P.E. EHS Support (email)



CERTIFICATION

"I certify under penalty of law that this *Voluntary Remediation Program Semi-Annual Progress Report #4* and all attachments were prepared by me or under my direct supervision in accordance with the Voluntary Remediation Program Act (O.C.G.A. Section 12-8-101, et seq.). I am a professional engineer/professional geologist who is registered with the Georgia State Board of Registration for Professional Engineers and Land Surveyors/Georgia State Board of Registration for Professional Geologists and I have the necessary experience and am in charge of the investigation and remediation of this release of regulated substances.

Furthermore, to document my direct oversight of the Voluntary Remediation Plan development, implementation of corrective action, and long term monitoring, I have attached a monthly summary of hours invoiced and description of services provided by me to the Voluntary Remediation Program participant since the previous submittal to the Georgia Environmental Protection Division.

The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Kristin A. VanLandingham PE035825

Printed Name and GA PE/PG Number

June 27, 2014

Date

Signature and Stamp



TABLES

Table 1 - Summary of Monitoring Well Construction Details and Groundwater Elevation Data, August 21, 2013 Tara Shopping Center Jonesboro, Georgia HSI 10798

Well	Date	Screen Interval	Top of Casing Elevation (ft. above	Ground Surface Elevation (ft. above	Depth to Water	Groundwater Elevation (ft. above	Total Depth	Water Bearing
Identification	Installed	(ft. bgs)	MSL)	MSL)	8/21/2013	MSL)	8/21/2013	Zone
MW-1A	04/25/06	15.0 - 25.0	898.82	899.14	Dry	NA	24.83	Shallow
MW-1C	04/09/08	83.0 - 98.0	899.01	899.24	37.15	861.86	100.00	Bedrock
MW-3A	05/03/06	15.0 - 25.0	892.41	892.70	20.02	872.39	NR	Shallow
MW-3B	05/03/06	45.0 - 55.0	892.54	892.70	20.20	872.34	NR	Shallow
MW-4A	04/28/06	15.0 - 25.0	884.63	884.96	12.43	872.20	24.84	Shallow
MW-4B	04/28/06	50.0 - 60.0	884.67	884.95	12.73	871.94	58.72	Intermediate
MW-5A	05/01/06	15.0 - 25.0	883.48	883.72	12.71	870.77	24.52	Shallow
MW-5B	05/01/06	36.0 - 46.0	883.43	883.72	12.76	870.67	45.00	Intermediate
MW-5C	04/10/08	75.0 - 90.0	883.64	883.88	14.94	868.70	89.71	Bedrock
MW-6A	05/02/06	15.0 - 25.0	881.41	881.70	11.56	869.85	NR	Shallow
MW-6B	05/02/06	57.0 - 67.0	881.54	881.80	11.75	869.79	NR	Intermediate
MW-7B	07/26/06	23.0 - 33.0	896.93	897.15	26.57	870.36	32.80	Intermediate
MW-7C	04/10/08	52.0 - 62.0	896.96	897.22	32.10	864.86	62.42	Bedrock
MW-8A	07/26/06	23.0 - 32.0	895.14	895.27	25.08	870.06	26.12	Shallow
MW-8B	07/26/06	47.0 - 57.0	895.02	895.26	24.94	870.08	57.02	Intermediate
MW-8C	04/10/08	71.0 - 85.0	895.04	895.27	31.85	863.19	84.85	Bedrock
MW-9A	07/25/06	20.0 - 30.0	891.65	892.20	20.02	871.63	30.15	Shallow
MW-9B	07/25/06	52.0 - 62.0	892.08	892.20	20.81	871.27	63.25	Intermediate
MW-9C	04/10/08	85.0 - 100.0	891.92	892.10	20.54	871.38	NR	Bedrock
MW-10A	02/19/08	27.0 - 37.0	896.85	897.06	25.63	871.22	37.61	Shallow
MW-10B	02/19/08	40.0 - 50.0	896.71	896.97	25.32	871.39	49.55	Intermediate
MW-10C	04/10/08	75.0 - 90.0	896.81	896.98	29.91	866.90	88.31	Bedrock
MW-11A	02/20/08	20.0 - 30.0	893.92	894.19	NA	NA	NA	Shallow
MW-11B	02/20/08	46.0 - 56.0	893.84	894.15	NA	NA	58.21	Intermediate
MW-11C	04/10/08	73.0 - 88.0	894.07	894.32	NA	NA	82.93	Bedrock
MW-12A	02/20/08	20.0 - 30.0	891.28	891.30	19.15	872.13	NR	Shallow
MW-13A	03/27/08	14.0 - 24.0	881.08	881.35	9.05	872.03	24.32	Shallow
MW-13B	03/27/08	62.0 - 72.0	881.09	881.30	9.58	871.51	71.15	Intermediate
MW-13C	10/15/08	78.0 - 89.0	881.16	881.36	10.02	871.14	87.70	Bedrock
MW-14A	02/20/08	25.0 - 35.0	899.70	899.86	25.73	873.97	34.80	Shallow
MW-15A	09/18/08	27.5 - 37.5	888.05	888.30	19.72	868.33	37.35	Shallow
MW-15B	09/19/08	38.5 - 48.5	888.09	888.30	19.83	868.26	47.55	Intermediate
MW-16A	09/18/08	22.0 - 32.0	879.48	879.90	11.57	867.91	32.32	Shallow
MW-16B	09/19/08	34.0 - 44.0	879.65	879.90	11.68	867.97	43.21	Intermediate
MW-16C	10/14/08	58.0 - 68.0	878.84	878.97	13.42	865.42	67.87	Bedrock
MW-17A	03/30/11	20.0 - 30.0	NS	NS	NA	NA	NA	Shallow
MW-18A	11/27/12	20.0 - 30.0	888.29	888.63	16.81	871.48	29.82	Shallow
MW-18B	11/27/12	47.0 - 57.0	888.23	888.60	16.71	871.52	56.41	Intermediate
MW-19A	12/05/12	25.0 - 35.0	879.94	880.10	13.06	866.88	32.45	Shallow
MW-19B	12/05/12	50.0 - 60.0	880.17	880.32	13.08	867.09	59.87	Intermediate
MW-19C	12/04/12	75.0 - 85.0	880.01	880.21	12.73	867.28	84.50	Intermediate
MW-20C	12/04/12	35.0 - 45.0	875.44	875.75	16.71	858.73	44.68	Bedrock
	14/04/14	33.0 - 43.0	0/3.44	013.13	10./1	030.73	44.00	Bedlock
Stream Gauge	07/24/12	NTA NTA	05474	NT A	2.05	051.00	NTA	l NIA
SG-1	07/24/13	NA - NA	854.74	NA	2.85	851.89	NA	NA

Notes:

ft. bgs = feet below ground surface

MSL = Mean Sea Level NA = Not applicable NR = Not recorded

Table 2 - Proposed Monitoring Wells Tara Shopping Center Jonesboro, Georgia HSI 10798

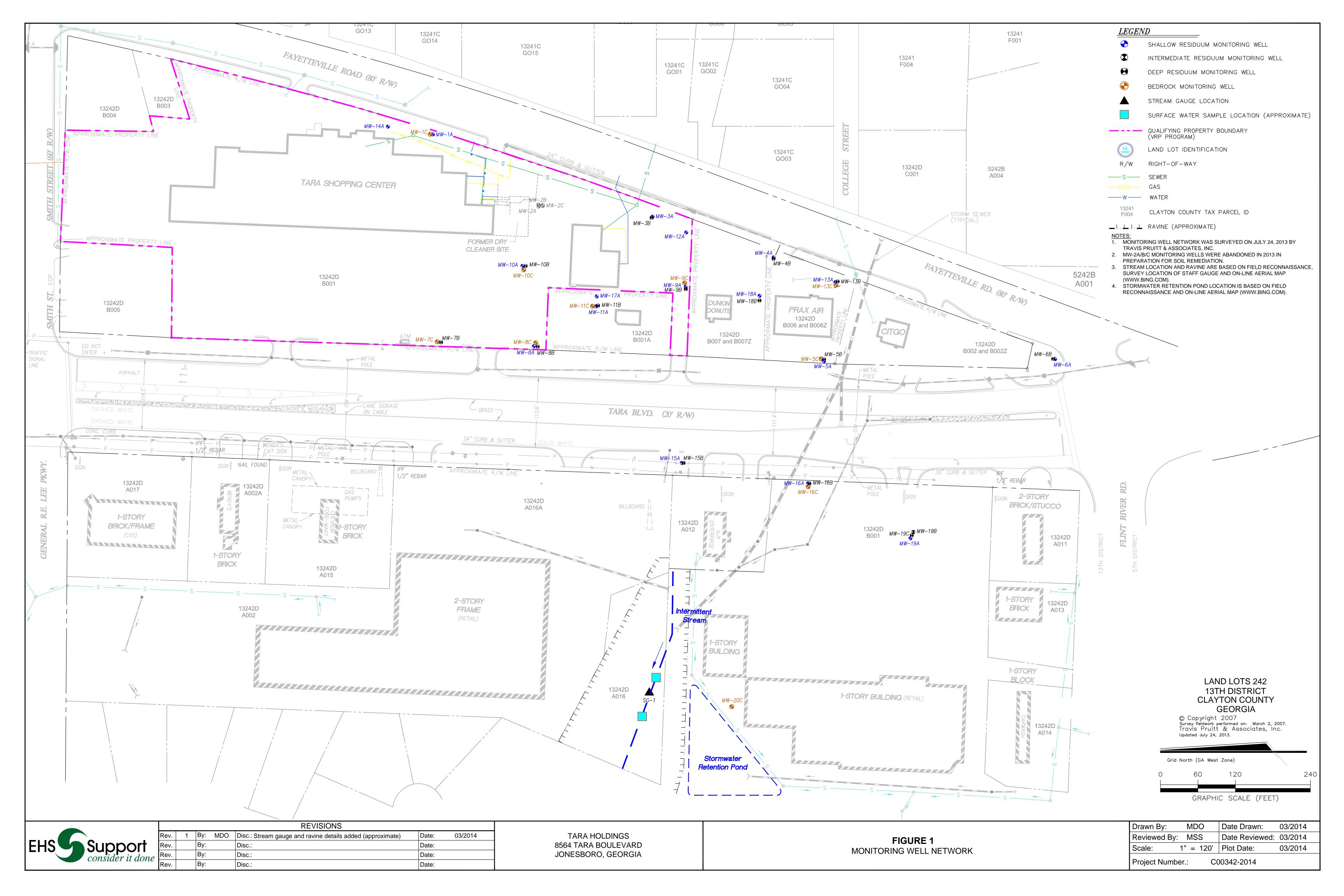
Location	Well Identification	Ir	eted (nterv		Water Bearing Zone	
8557 Tara Boulevard	MW-15C	75	-	85	Bedrock	
	MW-23C	45	-	55	Bedrock	
	MW-24A	25	-	35	Shallow	
	MW-24B	50	-	60	Intermediate	
	MW-24C	75	-	85	Bedrock	
8639 Tara Boulevard	MW-19D	100	-	110	Shallow	
	MW-21B	50	-	60	Intermediate	
	MW-21C	75	-	85	Deep	
	MW-21D	100	-	110	Bedrock	
117 College Street	MW-22A	20	-	30	Shallow	
	MW-22B	60	-	70	Intermediate	

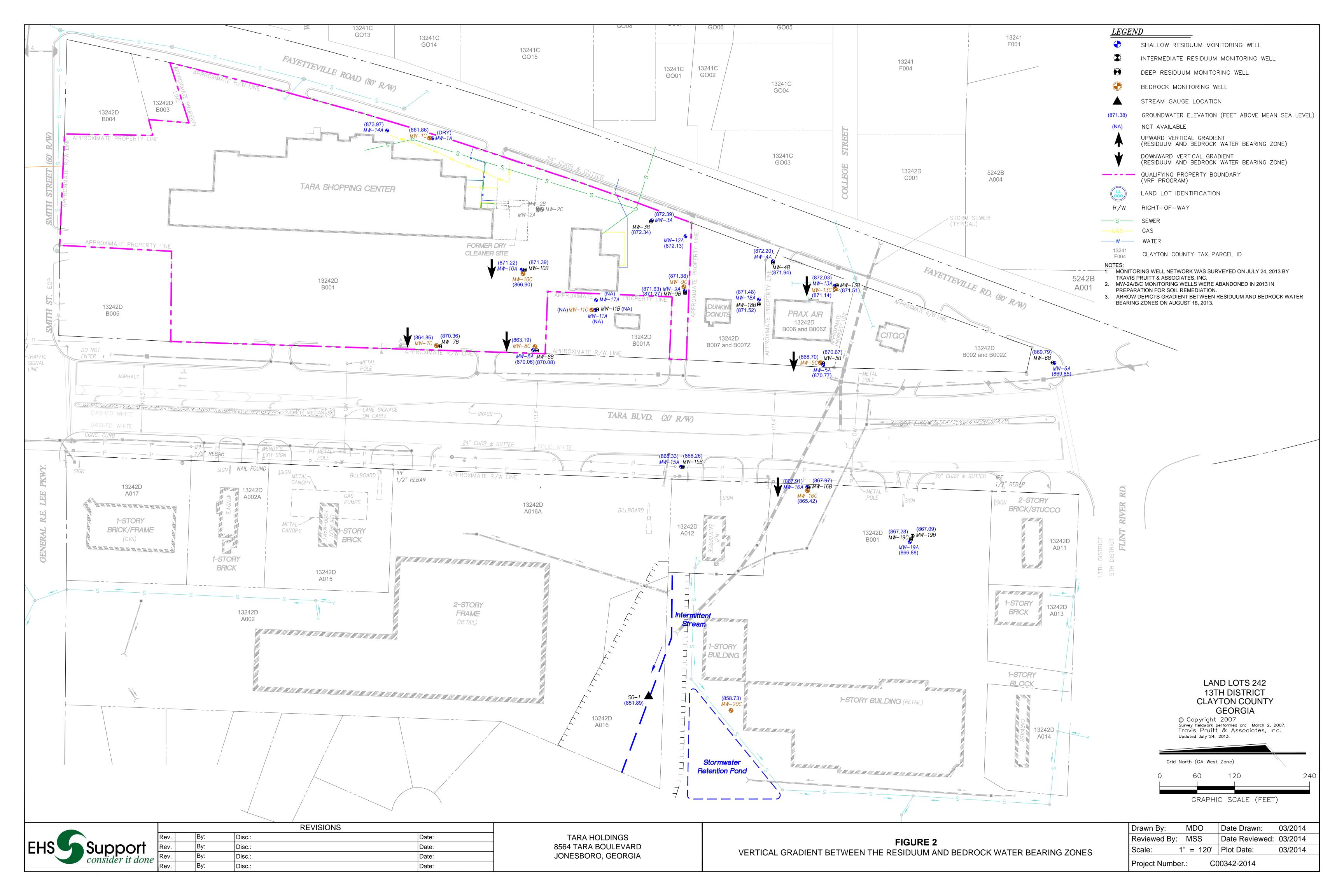
Notes:

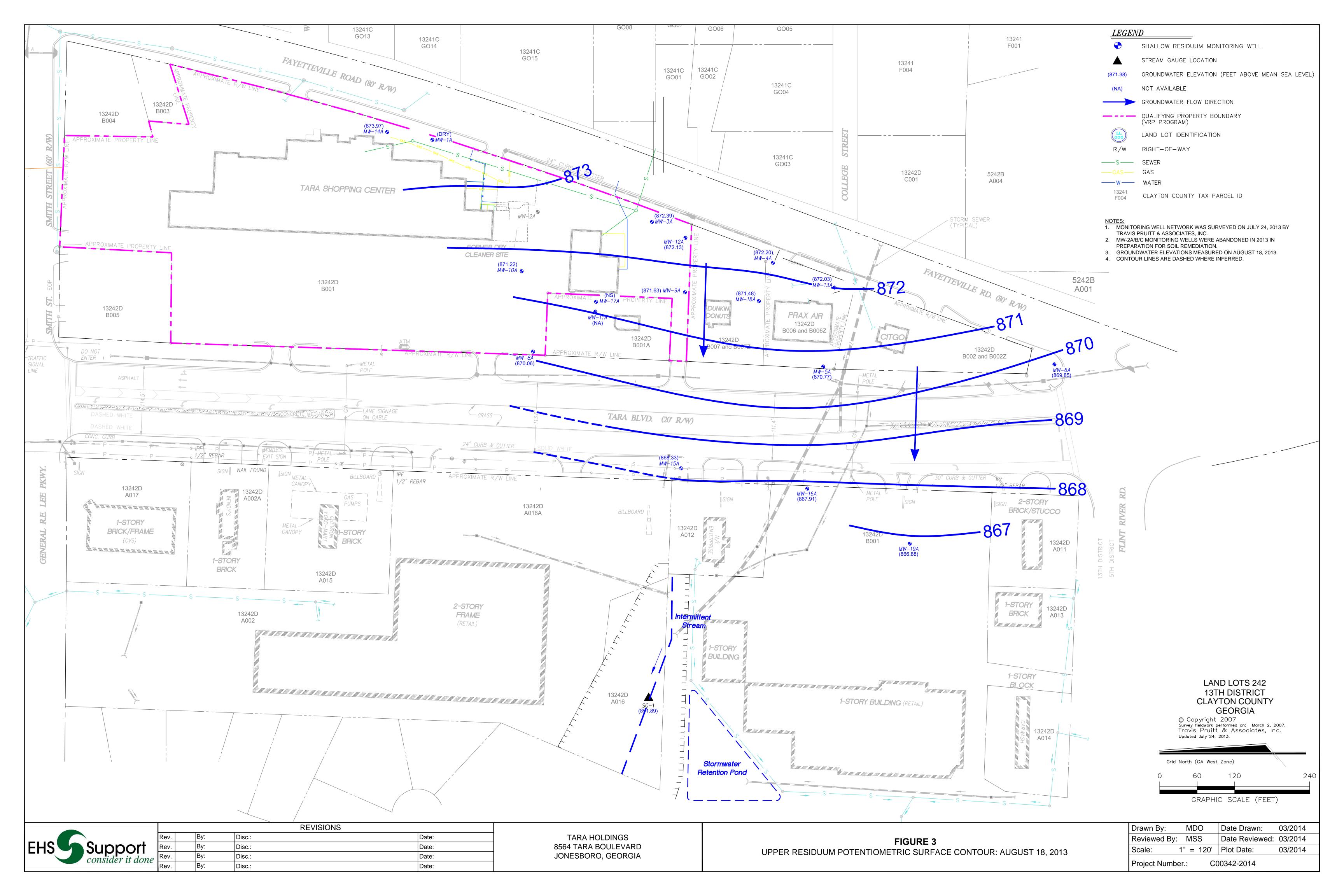
ft. bgs = feet below ground surface

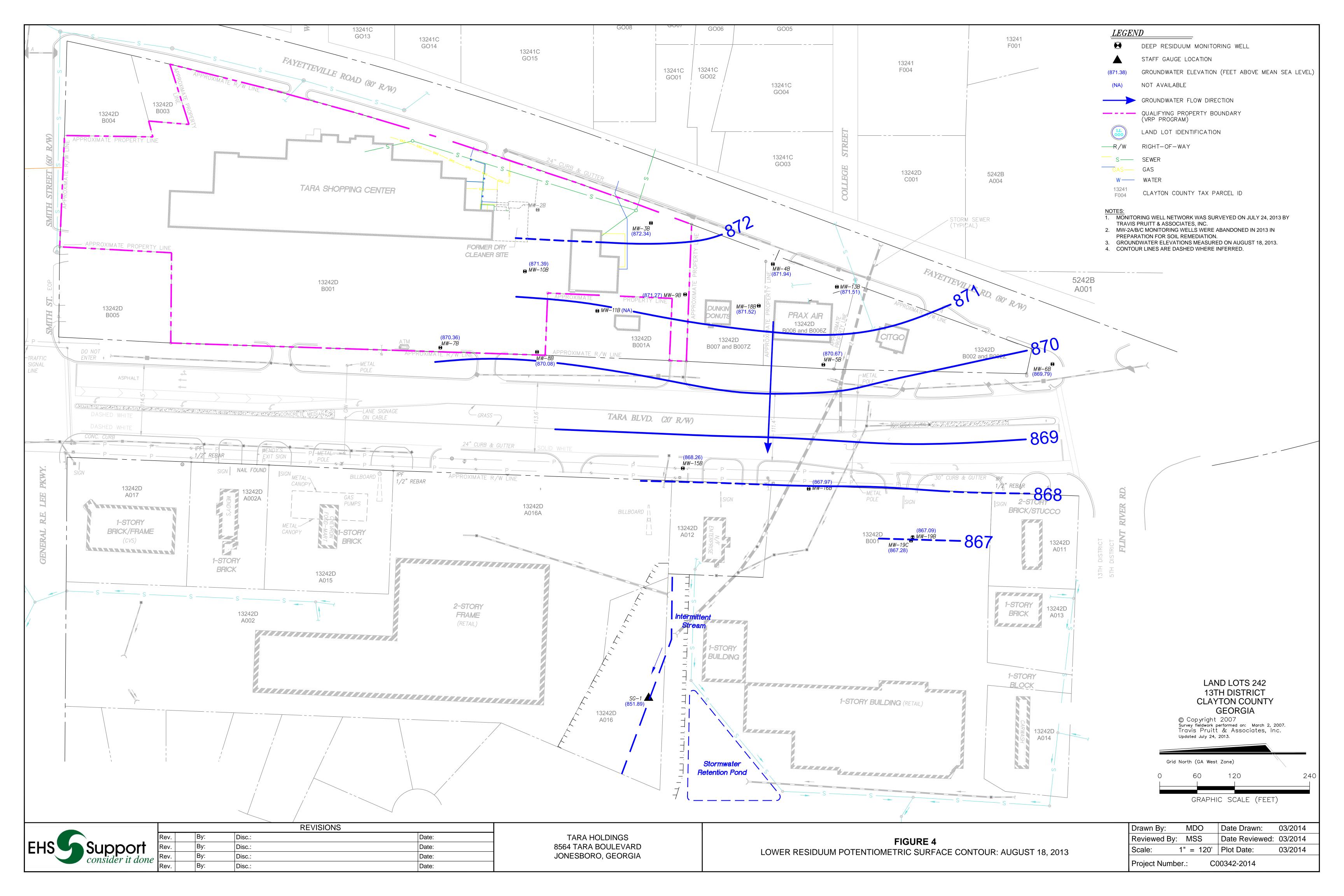
Target Screen Interval will be based on field observations.

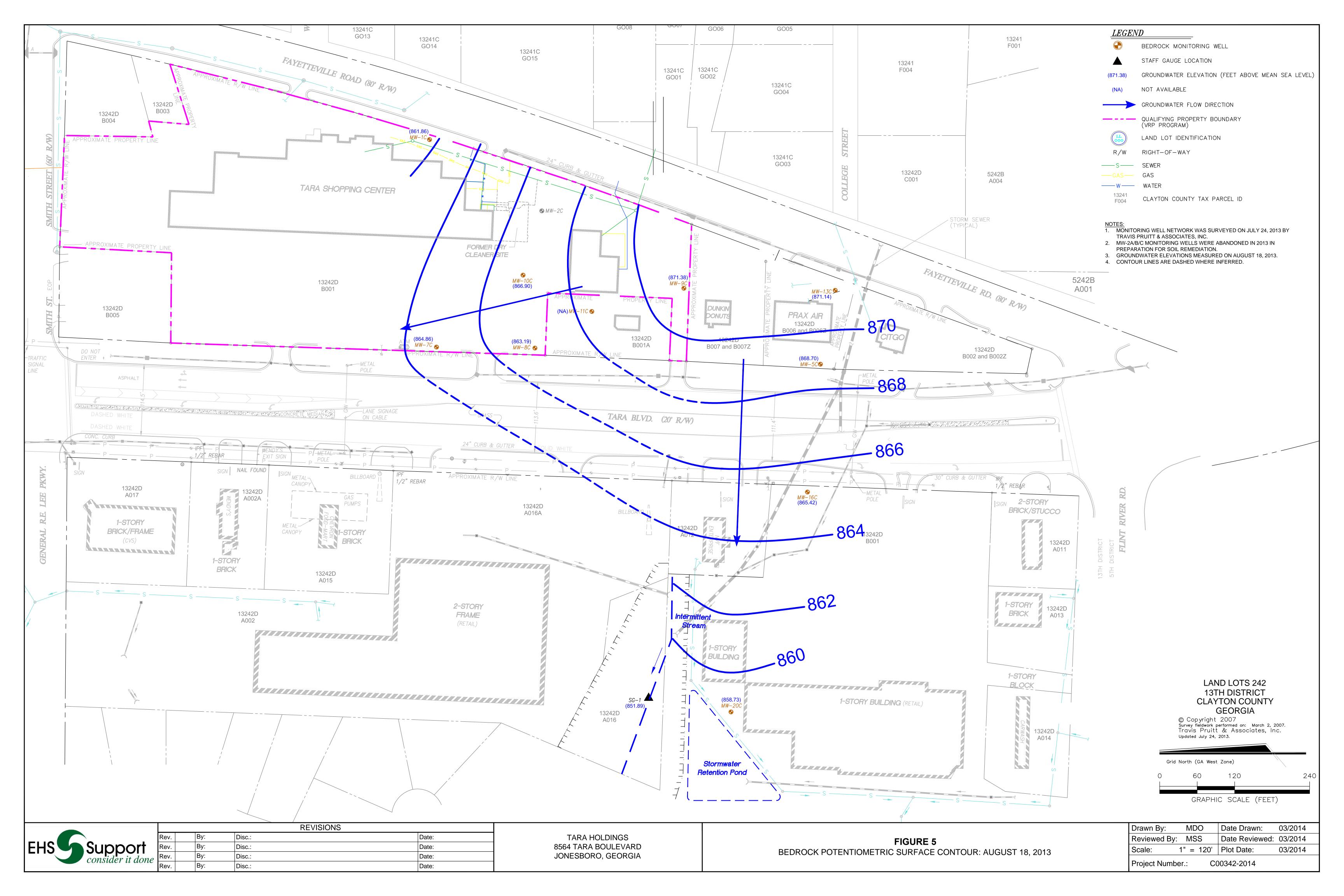
FIGURES

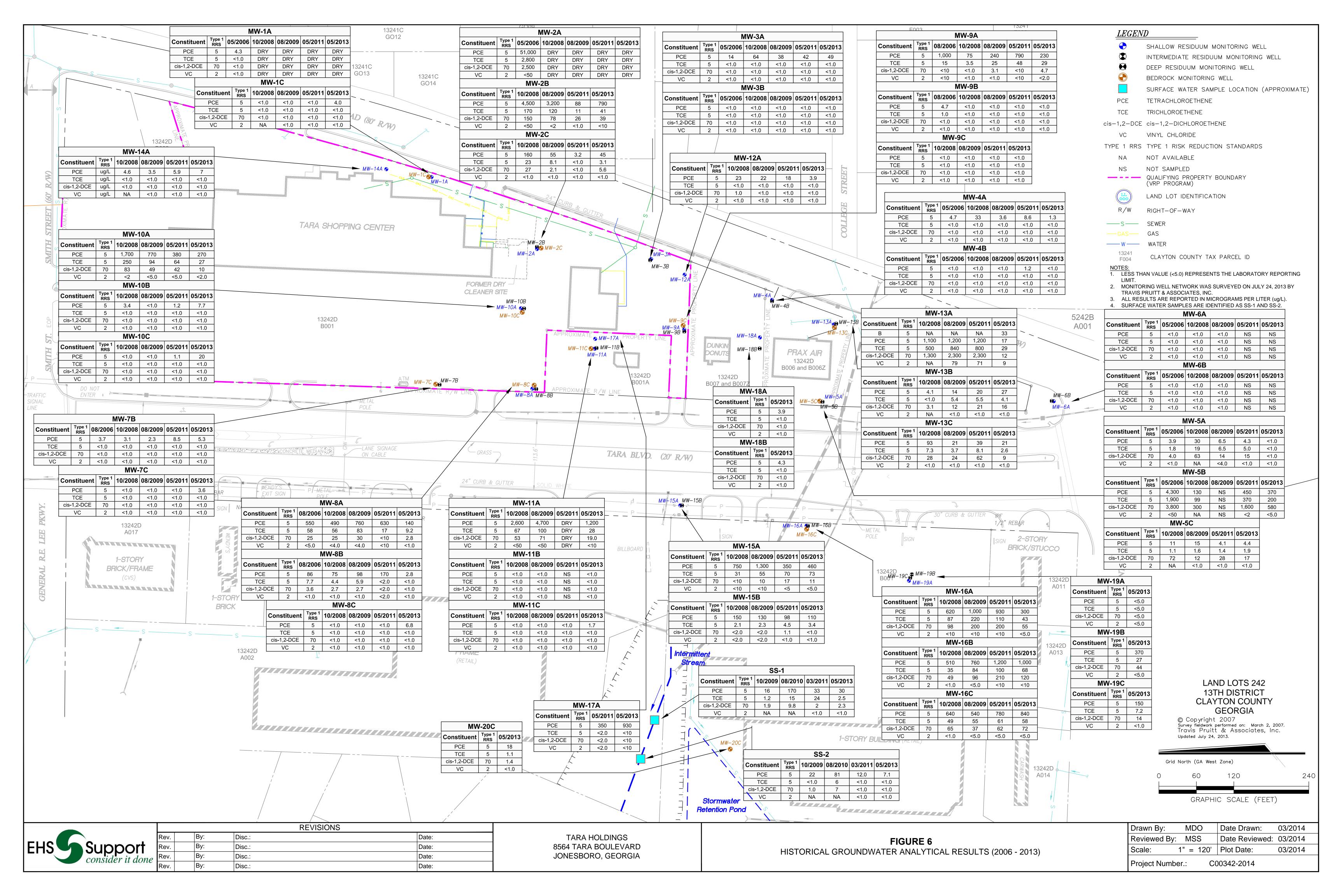


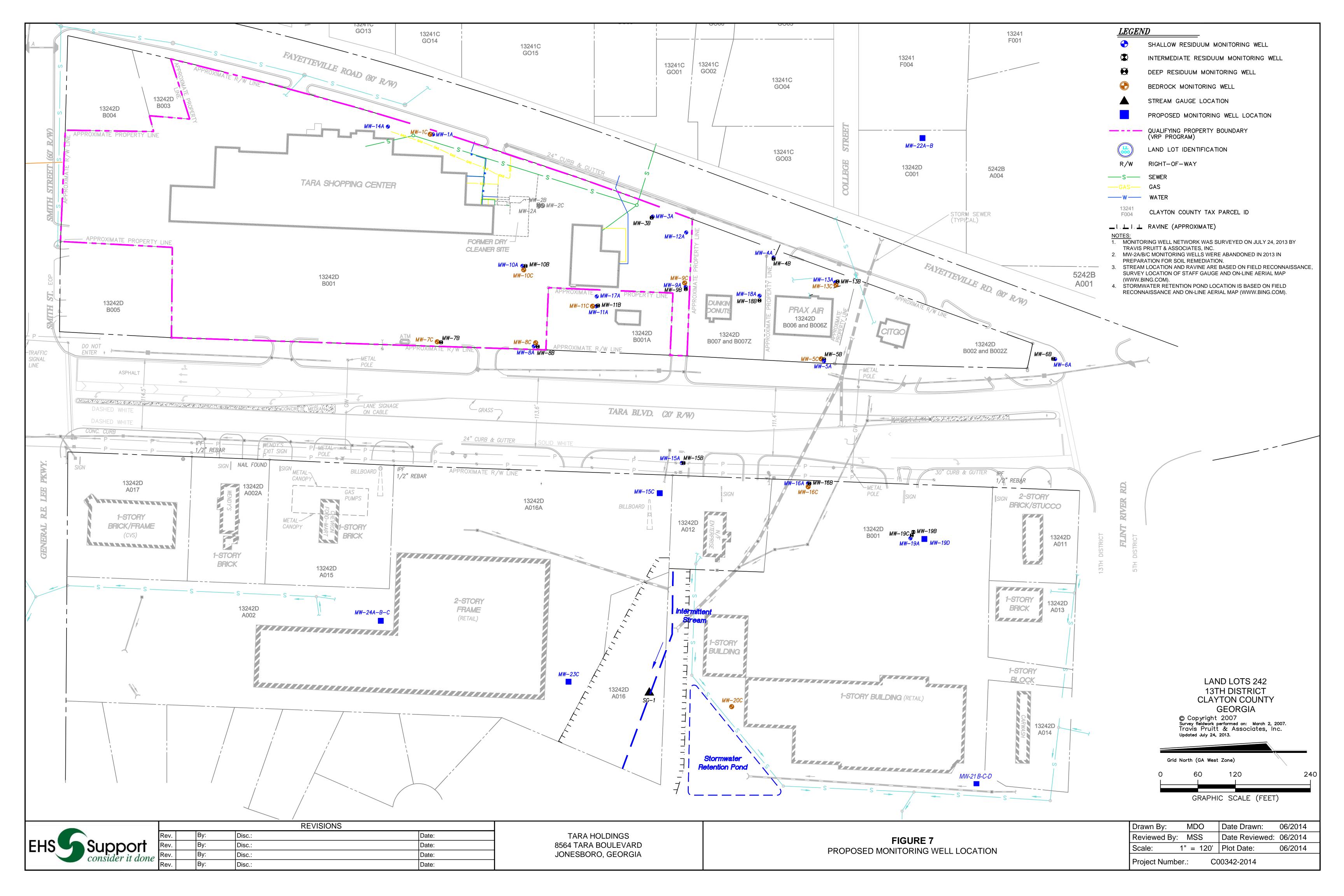


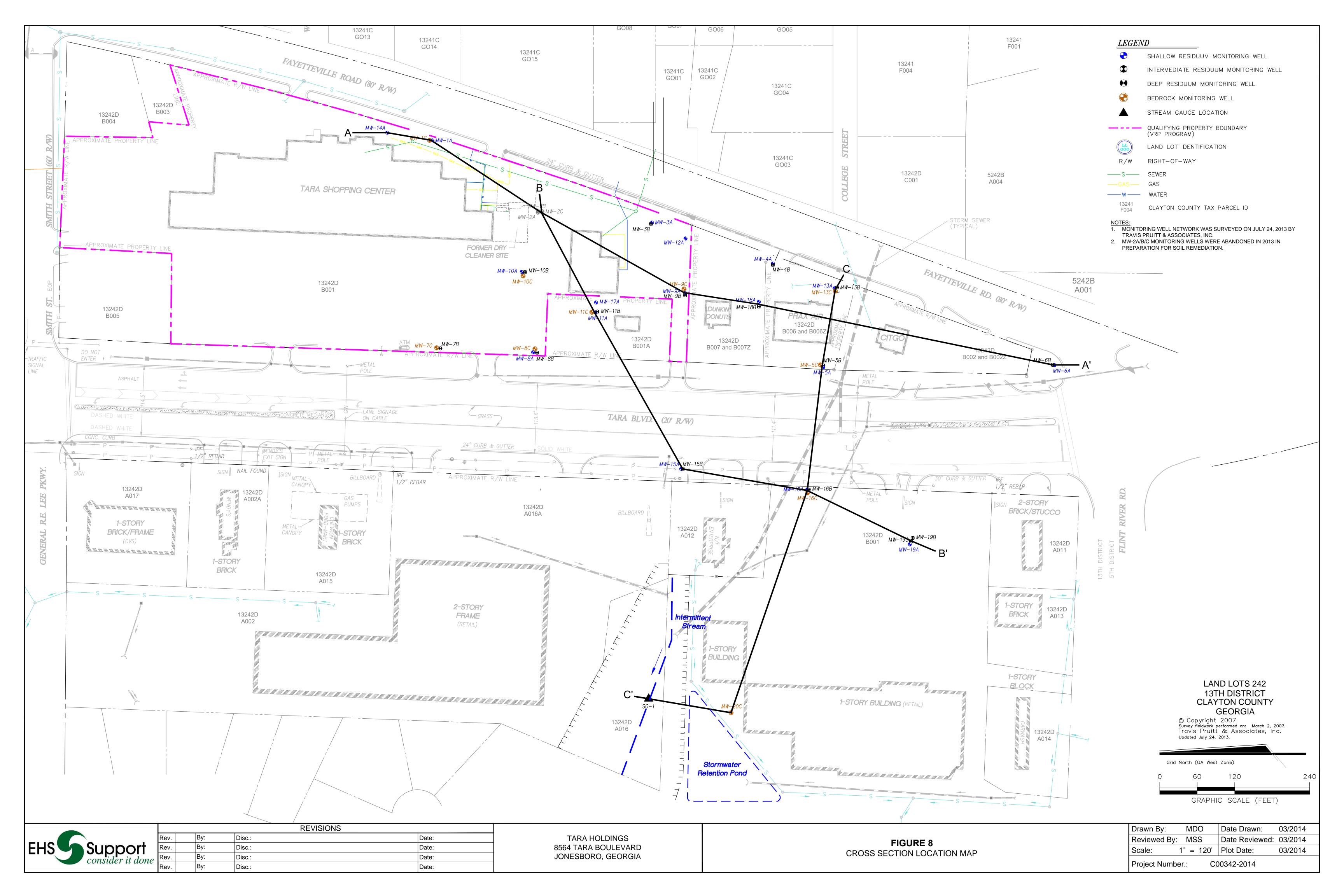


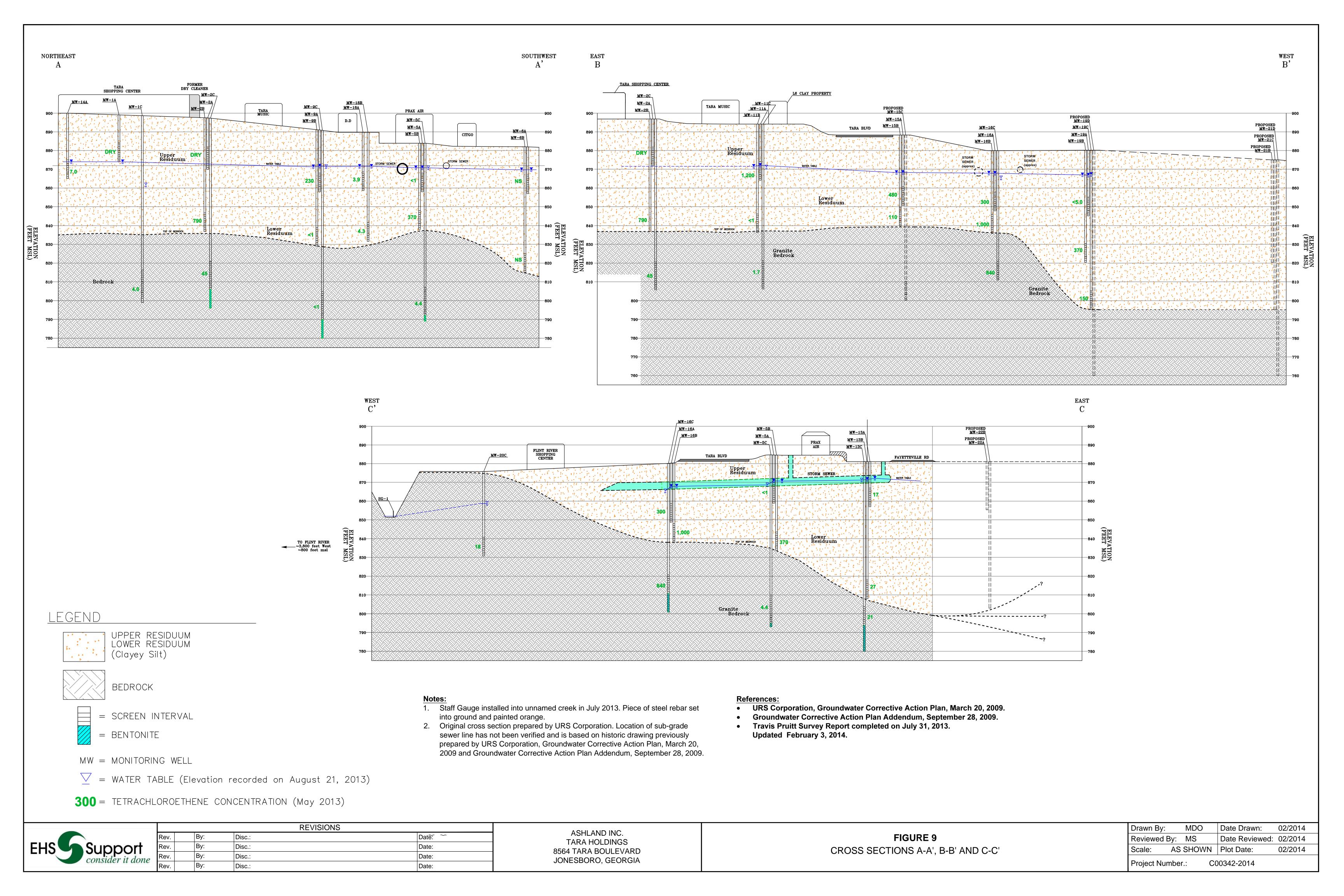












ATTACHMENT A

Professional Services

ATTACHMENT A

Tabulated Summary of Professional Engineer and Geologist Time (Period December 1, 2013 through May 31, 2014)

Tara Shopping Center, Jonesboro, GA

Voluntary Remediation Program (HSI 10798)

Professional Engineer	Date	Hours	Description		
Kristin VanLandingham, PE	1/10/2014	1	Remediation Contractor Invoice Review		
	1/15/2014	1	Remediation Contractor Invoice Review		
	2/7/2014	1	Review WRS ISS Implementation Report		
	2/14/2014	0.5	Review WRS ISS Implementation Report		
	2/18/2014	2	Review WRS ISS Implementation Report		
	3/13/2014	0.5	Review EHS Support Soil Remediation Completion Report		
	3/14/2014	0.5	Review EHS Support Soil Remediation Completion Report		
	4/7/2014	1	Remediation Contractor Invoice Review		
	4/11/2014	1	Review draft environmental covenant		
	4/14/2014	1.5	Review draft groundwater investigation scope of work		
Professional Geologist	Date	Hours	Description		
James Breza, PG	12/10/2014	1	Review groundwater quality data.		
	2/3/2014	1	Review preliminary groundwater conceptual site model		
	2/4/2014		Meeting with M. Stayrook to discuss site conceptual hydrogeologic model and proposed monitoring well locations.		
	4/14/2014	2.5	Technical Review of groundwater investigation scope of work supporting documents (Figures)		
	4/15/2014	2.5	Technical Review of groundwater investigation scope of work		
	4/16/2014	2	Review groundwater scope of work and strategy discussion for well placement		